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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/549,396 | 06/19/2006 | Bror Nyman | 4819-4752 | 6377 |

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| EXAMINER | |
|---|---|
| DRODGE, JOSEPH W | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 1797 | |

| NOTIFICATION DATE | DELIVERY MODE |
|---|---|
| 09/15/2008 | ELECTRONIC |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTOPatentCommunications@Morganfinnegan.com
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| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/549,396 | NYMAN ET AL. | |
| | Examiner | Art Unit | |
| | Joseph W. Drodge | 1797 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *09/14/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-38 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-29 of copending Application No. 10/549,721 in view of Blickle et al patent 3,607,104. The claims of the instant application substantially differ from those of '721 mainly in having an inward flow of dispersion on either sides of the outward flow separated by respective partition walls instead of having an outward flow of dispersion separated from an inward flow of dispersion by a single partition wall. However, Blickle at column 2, lines 27-39 teaches the obviousness of adding additional partition walls and adjacent sections of countercurrent flow to increase the total flow volume of fluids treated on an industrial scale.

This is a provisional obviousness-type double patenting rejection.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blickle et al patent 3,607,104 in view of Nyman et al patent 6,083,400. Blickle et al disclose method and apparatus for separating of components of liquid or aqueous phase mixtures that may be obtained from metal or mining recovery operations concerning copper ore (column 1, lines 4-11 and Examples 4 and 5). The apparatus employed utilizes solvent extraction mass transfer in which liquid flow streams flow in countercurrent separated by a perforated partition wall in a horizontal flow chamber (column 1, lines 48-56, etc.), the streams optionally being of a forward flow and

counter or return/reverse flow of the same liquid. ***There may be a plurality of perforated partition walls in parallel defining multiple chamber sections of forward and countercurrent reversed flow (column 2, lines 27-39, etc.).*** The apparatus further comprises relatively upper and lower perforated plates situated horizontally and perpendicular to the partition walls (column 2, lines 40-47) which may function as a reversing element in combination with vertically oriented baffle plates that are situated perpendicularly to the partition wall (column 2, lines 51-58). The separated flow streams or solutions are separated from each other and removed by outlet pipes situated at either end of the chamber (column 2, lines 30-32).

The claims differ by requiring that the apparatus and method be applied to separation of aqueous and organic phases during metal recovery of the copper. However, Nyman teaches use of a horizontal flow chamber to treat dispersions of organic and aqueous phases employed in extraction of copper ore (column 1, lines 22-53). The Nyman process and apparatus also employs return flow of dispersion phases and employs vertically and horizontally oriented partition and baffle walls and flow reversing structure. It would have been obvious to have applied the apparatus and process of Blickle et al to the treatement of dispersions containing organic and aqueous phases, as suggested by Nyman, in order to even out the flow volumes of the phases , reducing turbulence, and effecting an even , continuous mass flow (see Nyman at column 1, lines 17-20 and 27-30 and Blickle at column 1, lines 35-37).

For claims 13 and 31, Nyman further teaches headboxes 2-4 for dispersions and headboxes 9 and 10 for separated solution, to effect collection of the solution phases into discrete flow-controlled flow volumes.

Blickle et al disclose the following for dependent claims: inclined baffle or perforation walls and thus increasing or decreasing flow in downstream directions for claims 3,17,18 and also 25-29 (column 2, lines 50-52) , the partition walls substantially extending the length of the chamber for claims 4 and 16 (figures), the partitions and plates being perforated and hence slotted and to create numerous sub-flows for claims 5 and 6 and also 23-25(column 2, lines 30 and 41), although "mostly solid" for claim 18, use of any number of horizontal perforated plates to effect flow patterns for claims 5-9 and 19-21 (column 2, lines 40-42), and recovery of copper for claim 12 (Examples 4 and 5). Also the disclosed horizontal plates are sequentially above each other and thus higher for claims 19-21, and solid blocking plates/baffles 12 for claim 21. Baffles and plates may be adjustably located (column 2, lines 57-58) for claim 30.

Nyman teaches the following: use of picket fences for claims 2,10,14,15,35 and 36 (column 2, lines 53-55), recirculation of separated phases or solutions (Abstract) for claim 11 and front pump and mixing sections or tanks 2-4 for claims 35-38. Blickle also discloses optional mixing means at column 2, lines 63-64.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Drodge at his direct government telephone number of 571-272-1140. The examiner can normally be reached on Monday-Friday from approximately 8:30 AM to 12:30 PM and 2:00 PM to 6:00 PM.

Alternatively, to contact the examiner, send a communication via E-mail communication to the Examiner's Patent Office E-mail address: "Joseph.Drodge@uspto.gov". Such E-main communication should be in accordance with provisions of MPEP (Manual of Patent Examination Procedures) section 502.03 & related MPEP sections. E-mail communication must

begin with a statement authorizing the E-mail communication and acknowledging that such communication is not secure and will be made of record, under Patent Internet Usage Policy Article 5. A suggested format for such authorization is as follows: "Recognizing that Internet communications are not secure, I hereby authorize the USPTO to communicate with me concerning any subject matter of this application by electronic mail. I understand that a copy of these communications will be made of record in the application file.

Additionally, the examiner's supervisor, David Roy Sample, of Technology Center Unit 1797, can reached at 571-272-1376.

The formal facsimile phone number, for official, formal communications, for the examining group where this application is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or Public PAIR, and through Private PAIR only for unpublished applications. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JWD
9/9/2008
/Joseph W. Drodge/
Primary Examiner, Art Unit 1797